

ABSTRACT

A system and method for providing file data, such as a set of files for updating a computer system, in a self-contained package, in which the package size is significantly
5 reduced via delta compression. A build mechanism examines files to be distributed, and generates a self-contained package containing files and deltas. To this end, a directed graph is built from the sizes of the various base file and delta file possibilities, and a minimum spanning tree
10 computation selects the files that result in the smallest package. A base file may have multiple deltas applied to synthesize multiple files, and any base file may itself have been previously synthesized from another base file and a delta. A client extraction mechanism, optionally provided
15 with the package, works with the contents of the package as directed by a manifest to synthesize target files from the base files and the contained deltas.